Claims:

1. An improved, low-temperature oxidation-reduction catalyst comprising:

a noble metal selected from the group consisting of platinum, palladium, gold, silver and rhodium;

a first metal oxide which possesses more than one stable oxidation state including at least tin oxide; and

a second metal oxide including at least zirconium oxide.

2. An improved, low-temperature oxidation-reduction catalyst of claim 1, further comprising a third metal oxide selected from the group consisting of cerium oxide, hafnium oxide, lanthanum oxide, and ruthenium oxide.

3. An improved, low-temperature oxidation-reduction catalyst of claim 2, wherein said third metal oxide is cerium oxide.

4. An improved, low-temperature oxidation-reduction catalyst of claim 2, wherein said first metal oxide, second metal oxide, and third metal oxide have a mass ratio of about 1.0: 0.5: 0.5.

5. An improved, low-temperature oxidation-reduction catalyst of claim 1, further comprising a promoter selected from the group consisting of oxides of the metals of the transition series of the periodic table of elements, the promoter being present in an amount sufficient to provide from about 1 to about 12 atom percent of promoter metal to tin metal.

6. An improved, low-temperature oxidation-reduction catalyst of claim 1, wherein said noble metal is from about 1 to about 50 weight percent, based on the total weight of the catalyst; and the first and second metal oxide are collectively from about 50 to about 99 weight percent based on the total weight of the catalyst.

7. An improved catalyst of claim 1 for use in the oxidation of carbon monoxide.

8. An improved catalyst of claim 1 for the use in the oxidation of formaldehyde.

9. An improved catalyst of claim 1 for the use in the oxidation of volatile organic compounds.

10. An improved catalyst of claim 9, wherein the volatile organic compound is a hydrocarbon.

11. An improved catalyst of claim 1 for the use in the reduction of nitrogen oxide species.

12. A process for the oxidation of carbon monoxide and volatile organic compounds and the reduction of nitrogen oxide which process comprises exposing said carbon monoxide, volatile organic compounds and nitrogen oxide to a catalyst comprising from about 1 to about 50 weight percent, based on the total weight of the catalyst, of a noble metal selected from the group consisting of platinum, palladium, gold, silver, and rhodium, which has been dispersed on from about 50 to 99 weight percent, based on the total weight of the catalyst, of a first metal oxide which possesses more than one stable oxidation state including at least tin oxide and a second metal oxide including at least zirconium oxide.

13. The process of claim 12, wherein said first and second metal oxide are in association with a third metal oxide selected from the group consisting of cerium oxide, lanthanum oxide, hafnium oxide, and ruthenium oxide.

14. The process of claim 13, wherein said third metal oxide is cerium oxide.

15. The process of claim 13, wherein said first, second and third metal oxide are in association with a promoter selected from the group consisting of oxides of the metals of the transition series of the periodic table of elements, the promoter being present in an amount sufficient to provide from about 1 to about 12 atom percent of promoter to tin metal.

16. The process of claim 13, wherein said first metal oxide, second metal oxide, and third metal oxide have a mass ratio of about 1.0: 0.5: 0.5.